

# DISCUSSION FRAMEWORK: ADDRESSING CLIMATE CHANGE



This is a **draft framework** to help educate and engage the community about climate change at the local level: how much the City is contributing to Greenhouse Gas (GHG) emissions, and what the City and community can do to reduce its contribution.

In 2007, The City of Mill Valley adopted a greenhouse gas emissions reduction target from 2005<sup>1</sup> levels of 15% for community-related activities and a 20% reduction for municipal government-related operations by 2020. The information provided in this document will be used as a framework for a community-wide discussion and process that will lead to the development of programs and policies for the community to reach these targets.

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<sup>1</sup> The most recent emissions inventory used 2005 as the baseline year and is more accurate than the earlier inventory. Therefore, the emissions reduction targets will be applied to the 2005 baseline rather than 2000, as originally adopted by City Council.

## Table of Content

- I. **What is Climate Change?**
- II. **What is Being Done & Why is the City Addressing Climate Change?**
- III. **How Much Greenhouse Gas Emissions Does Mill Valley Generate?**
- IV. **What Can the City and residents of Mill Valley do to reduce its impact/contribution?**
  - o Transportation & Land Use
  - o Buildings & Energy
  - o Waste
  - o Water
  - o Natural Systems/Sequestration & Offset
  - o Climate Friendly Food
  - o Adaptation
  - o Other-What Else?
- V. **Appendices**
  - o State of California Laws & Initiatives
  - o Existing Mill Valley Programs & Policies
  - o List of Resources

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# I. WHAT IS CLIMATE CHANGE?



*“Recent greenhouse gas emissions place the Earth perilously close to dramatic climate change that could run out of our control, with great dangers for humans and other creatures. We must begin to move rapidly to the post-fossil fuel clean energy system.”*

- James Hansen, Chief Climate Scientist, NASA, Director, Goddard Institute, Columbia University

*“If there is no action before 2012, that’s too late. What we do in the next two to three years will determine our future. This is the defining moment.”*

- Rajendra Pachauri, Chair of the Intergovernmental Panel on Climate Change (IPCC)

## Overview of the Climate Crisis

The United Nations Intergovernmental Panel on Climate Change (IPCC), a global scientific consortium on climate change, has provided compelling scientific evidence that human-induced greenhouse gas (GHG) emissions are now producing climate impacts with dangerous consequences for the ecosystems on which all life depends. According to research by Lawrence Berkeley Laboratory and James Hansen, NASA’s Chief Climate Scientist, recent global emissions trend lines – if unchanged -- will produce these likely consequences:

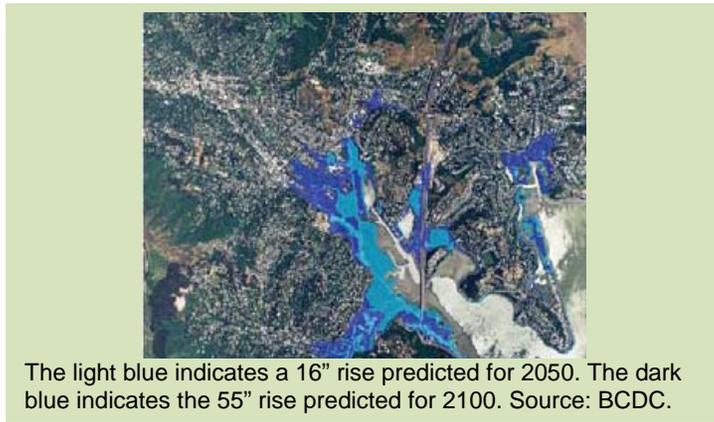
- **Temperature:** Average temperatures could increase as much as 10 degrees F by the end of the century, with 3.6 degrees F considered the “tipping point” beyond which runaway climate impacts – including full melting of the polar ice – are inevitable.
- **Fire Risk:** The occurrence of large wildfires could increase by as much as 35-55%.
- **Water Availability:** Based on current trends, by 2050 the average April measurement of the Sierra snowpack will drop by 13 feet, resulting in a loss of 36% of California’s water supply. These impacts will dramatically increase competition for scarce water resources, severely reduce the state’s agricultural production, and further intensify the frequency and duration of droughts.
- **Public Health:** Climate change will increase the frequency and intensity of conditions conducive to air pollution, harsh heat, and vector-borne disease.
- **Sea Level Rise:** Estimates of sea level rise range from as little as 2 - 3 feet if emissions trend downward, to as much as 8.5 - 35 feet by the end of the century if emissions continue to rise in a “business as usual” (BAU) scenario.

Between 1900 and 2000, sea level rise in the Bay underneath the Golden Gate was 7 inches, primary due to thermal expansion from global warming, and this rate of increase is accelerating.

According to a Bay Conservation and Development Commission’s (BCDC) September, 2008 report, *A Sea Level Rise Strategy for the San Francisco Bay Region*:

*Recent analyses indicate that sea level rise from warming oceans may be 1.4 meters (about 55 inches) over the next 100 years, or even higher depending upon the rate at which glaciers and other ice sheets on land melt. BCDC’s illustrative maps show that a one-meter rise in the level of the Bay could flood over 200 square miles of land and development around the Bay. . . . Initial estimates indicate that over \$100 billion worth of public and private development could be at risk.<sup>2</sup>*

**Figure 1: Sea Level Rise in Mill Valley**



In the face of large-scale damage estimates from even the most conservative sea level rise expectations, among many other negative environmental and economic impacts of global warming, leading scientists are urging policy-makers to take

<sup>2</sup> A Sea Level Rise Strategy for the San Francisco Bay Region, p. 2, [http://www.bcdc.ca.gov/planning/climate\\_change/SLR\\_strategy.pdf](http://www.bcdc.ca.gov/planning/climate_change/SLR_strategy.pdf)

early and strong action both to mitigate emissions and to begin adapting to likely climate impacts.

### Measuring Greenhouse Gases

There are six internally recognized types of greenhouse gases. Each one has a different degree of impact on the global warming effect. To facilitate comparison across different emission sources with mixed and varied compositions of several greenhouse gases, the term “carbon dioxide equivalent” or CO<sub>2</sub>e is used. One metric ton of CO<sub>2</sub>e may consist of any combination of greenhouse gases, and has the equivalent Global Warming Potential (GWP) as one metric ton of carbon dioxide (CO<sub>2</sub>). See Table A for details.

According to the EPA’s April 2009 “Inventory of U.S. Greenhouse Gas Emissions,” the majority of GHG emissions comes from fossil fuel combustion, which in turn is used for electricity, transportation, industry, and heating, etc.<sup>3</sup>

**Table A: Description of Greenhouse Gases**

Gas	Chemical Formula	Global Warming Potential (CO <sub>2</sub> e)
Carbon Dioxide	CO <sub>2</sub>	1
Methane	CH <sub>4</sub>	21
Nitrous Oxide	N <sub>2</sub> O	310
Hydrofluorocarbons	Various	43-11,700
Perfluorocarbons	Various	6,500-9,000
Sulfur Hexafluoride	SF <sub>6</sub>	23,900

<sup>3</sup> <http://www.epa.gov/climatechange/emissions/usinventoryreport.html>, (Jan.1, 2010).

## II. WHAT IS BEING DONE & WHY IS THE CITY ADDRESSING CLIMATE CHANGE?



Climate change is being addressed at the federal, state, and local level through the implementation of programs and policies intended to reduce GHG emissions. Emissions reduction initiatives can produce substantial economic benefits as communities begin transitioning from fossil fuels to renewable energy, efficient green buildings and industrial processes, and to a greater utilization of public transit, cleaner fuels and electric vehicles. Benefits from the transition to a “low-carbon community” include new jobs in building energy retrofits and renewable energy projects, public health benefits from reduced air pollution, and enhanced local energy security and economic sustainability from reduced dependence on fossil fuels.

### Federal Climate Policy

As of October 2009, efforts are underway in Congress to develop and enact comprehensive climate and clean energy legislation. Senator Barbara Boxer, Chair of the Environmental and Public Works Committee, has stated that California’s legislative goals and strategies may be a viable starting point for federal legislation, see below.

### California Climate Policy

California produces roughly 1.4 percent of the world’s, and 6.2 percent of the total U.S. greenhouse gases.<sup>4</sup>

The State of California has been working to address its impact on climate since 1988, and continues to lead the country in addressing the climate challenge by enacting numerous legislative initiatives (see **Appendix A**). The most significant

of these initiatives is **AB 32**, which is the landmark “California Global Warming Solutions Act of 2006” establishing the first-in-the-world comprehensive program of regulatory and market mechanisms to achieve real, quantifiable GHG reductions. AB 32 requires California to reduce its greenhouse gas emissions to 1990 levels by 2020.

In 2007, the California Air Resources Board (CARB) conducted an emissions inventory for the state to identify emissions levels in 1990--that figure is 427 million metric tons of carbon dioxide equivalent. The inventory revealed that transportation was the largest single sector (35% of the state’s total 1990 emissions), followed by industrial emissions (24%); imported electricity (14%); in-state electricity generation (11%); residential use (7%); agriculture (5%); and commercial uses (3%).<sup>5</sup>

Preliminary estimates indicate that 2020 emission projections could be 600 million tons of carbon dioxide equivalent if no actions are taken to reduce greenhouse gases--the so-called “business-as-usual” scenario. *This means that California must prevent 173 million tons of carbon dioxide equivalent from being emitted by 2020 in order to meet the 1990 level as required by AB32.*

CARB is responsible for monitoring and reducing GHG emissions set forth in AB 32, and is therefore coordinating statewide efforts. CARB has developed discrete early actions to reduce greenhouse gases, and in early 2009 approved a Scoping Plan that outlines the actions required for California to

<sup>4</sup> <http://climatechange.ca.gov>, (Jan. 1, 2010).

<sup>5</sup> <http://www.arb.ca.gov/newsrel/nr120607.htm> (Jan. 1, 2010).

reach its 2020 emissions target. Reduction measures to meet the 2020 target will be adopted by early 2011.

CARB’s Scoping Plan includes local government climate protection efforts to meet California’s emissions reductions targets. Key strategies identified in the Scoping Plan that are best developed and supported by local governments in achieving the climate protection and emission reduction goals contained in AB32 include:

- Transportation and Community Design
- Local and Regional Emissions Targets (see “Marin County Climate Policy” below)
- Recycling and Waste Reduction
- Clean Energy
- Green Buildings
- Water

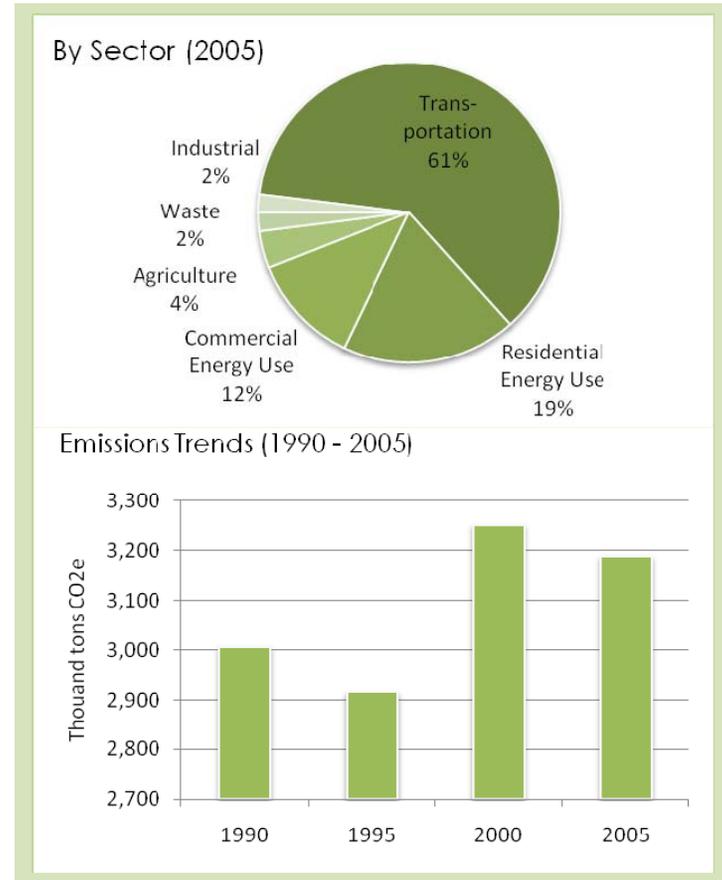
### Marin County Climate Policy

In May 1999, the Marin County Board of Supervisors unanimously approved a set of sustainability recommendations. Through these recommendations, the Board of Supervisors committed the County to undertake actions such as public environmental education, improving County operations, and using sustainability as the foundation for the update of the Countywide Plan.

In 2006, the County developed a strategic plan to reduce annual GHG emissions to 15% below 1990 levels by 2020. In 1990, Marin County GHG emissions were calculated at about 2.6 million tons, and in 2000 at about 3.1 million tons – a 15% increase. Between 2000 and 2005 emissions trends began moving down, so the net increase in emissions between 1990 and 2005 is estimated at 6%. Figure 2 shows the distribution of County-wide GHG emissions by sector in 2005 and emission trends over the past fifteen years.

Since a large portion of the County is operated and governed by the 11 local jurisdictions, it is important that the local municipalities, such as Mill Valley, participate in developing emission reduction measures and/or policies.

Figure 2: County-wide GHG Emissions



## II. WHAT IS BEING DONE & WHY IS THE CITY ADDRESSING CLIMATE CHANGE?



### Marin Climate and Energy Partnership (MCEP) – A Regional Response

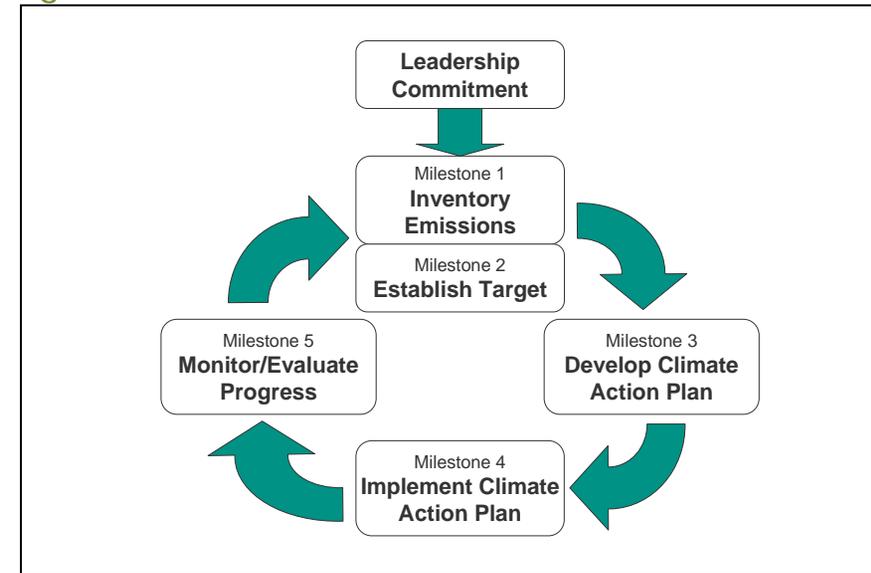
Recognizing the need for a collaborative, regional approach to GHG reductions, city and county leaders launched the Marin Climate and Energy Partnership (MCEP) in 2007. Mill Valley is a member of MCEP and works with other stakeholders on a variety of countywide GHG reduction measures, including development of enhanced green building ordinances, countywide Zero Waste efforts, and promoting countywide efforts to transition to a localized, climate friendly food system.

### The City of Mill Valley Responds to the Climate Challenge

The City of Mill Valley has continued to take a leadership role in sustainability related initiatives, including greenhouse gas reduction efforts. In January 2007, the City Council adopted a resolution to participate in the Cities for Climate Protection (CCP). This initiative is administered by the International Council for Local Environmental Initiatives (ICLEI), and seeks to reduce global greenhouse gas emissions through actions by local governments. Such actions include adopting policies and programs to achieve reductions in local greenhouse gas emissions, improve air quality, and enhance livability and sustainability.

By joining the CCP, the City has pledged to take a leadership role in promoting public awareness about the causes and impacts of climate change. The City also pledges to undertake the CCP program's **5 milestones** to reduce both greenhouse gas and air pollution emissions throughout the community, which include:

Figure 3: Five Milestone Process to Address GHG Emissions



1. **Conduct a Greenhouse Gas (GHG) Emissions Inventory** of current GHG emissions and forecast the growth in emissions that will occur without preventative action. In January 2007, a GHG emissions report was completed for Mill Valley based on 2002 data. In March 2009, that inventory was updated based on 2005 data. The full report and an executive summary can be found on the City's website.
2. **Set GHG reduction targets.** In November 2007, the City Council adopted a GHG emission reduction target of 20% below 2000 levels by 2020 for internal government operations, and 15% below 2000 levels communitywide by 2020. However, because the recent inventory is more accurate than an earlier, one 2005 is being used as the baseline year.
3. **Develop a local Climate Action Plan** that describes the policies, programs, and measures that will be implemented

to meet local and state targets. The City is currently working to develop this document with input from the community.

4. **Implement the local Climate Action Plan.** Once the Action Plan is finalized and adopted by City Council, the City will be responsible for implementing policies, programs and initiatives identified in the Action Plan.
5. **Monitor progress and report results.** In order for the City to successfully achieve its emissions reduction targets, progress reports will be required to monitor how well the City and community are doing in reducing emissions. The Climate Action Plan will be updated and modified, as needed, based on results from monitoring and reporting.

The City has also convened a “City Green” Committee, comprised of department heads and staff, to spearhead sustainable initiatives in City operations. In addition, a Sustainability Director position has been created to provide leadership and coordination on sustainability-related issues, including the City’s commitment to the above-referenced milestones. The City’s most recent sustainability initiatives are listed below. For additional details, see **Appendix B**.

#### *Government/Municipal Operations*

- **Energy/Buildings:** Foster energy efficiency in City facilities, planned solar system for the public safety building, solar power speed monitors, and Light Emitting Diodes (LED’s) traffic signals;
- **Transportation:** Promote ride sharing for Mill Valley employees, reducing employee commutes, and greening the City fleet;
- **Water:** Reclaim wastewater to re-use in irrigation; and
- **Waste:** Waste reduction efforts such as: bottled water ban, paper recycling at workstations, toner cartridge

recycling, “biosolids” recycling, oil and antifreeze recycling, hosting an annual e-Waste event to collect used electronics, and recycled lumber program.

#### *Community-wide Activities*

- **Outreach:** On-going climate protection education and awareness
- **Energy/Buildings:** Building permit fees waived for solar projects, all new residential and commercial development must comply with green building ordinance;
- **Transportation:** Coordination with Safe Routes to Schools and the Marin Bicycle Coalition to make it safer for kids to bike and walk to school, and the improvement of non-motorized pedestrian and bicycle amenities;
- **Air Quality/Emissions:** Spare the Air e-mail notifications are sent to residents and employees to inform them of the City ordinance which prohibits wood burning on Spare the Air nights, gas-powered leaf blowers are not allowed to be used in the City, new fireplaces must be gas or wood-burning fireplaces and certified by the Environmental Protection Agency as less polluting;
- **Water:** All new building projects must have landscape plans that conserve water;
- **Waste:** Collection bin for old batteries located at various city-locations, construction and demolition waste recovery ordinance requiring building contractors to recycle or reuse 50% of the waste that they generate from a construction project such as wood, metal, windows, doors, and styrofoam ban; and
- **Climate Friendly Food Systems:** Establishment of a Community Garden, with 35 registered plots for citizens to garden together, and City support for the local Farmer’s Market.

# III. HOW MUCH GREENHOUSE GAS EMISSIONS DOES MILL VALLEY GENERATE?



Mill Valley's updated greenhouse gas emissions inventory sets a baseline emissions level for the year 2005 and projects future emissions levels for the year 2020. The baseline and projection are used to determine the amount of emissions reductions necessary to achieve the City's adopted targets. The inventory also documents the highest sources of emissions, which helps to identify the greatest opportunities for emissions reductions.

## 2005 Baseline Inventory

### Citywide/Community Emissions

In 2005, Mill Valley as a community emitted approximately 95 thousand metric tons CO<sub>2</sub>e of greenhouse gases. As in all of Marin County and the region, transportation is the largest source of emissions in Mill Valley, accounting for 53%.

*Based on a Mill Valley 2001 Transportation Committee Study, Mill Valley's households make an average of over 11 vehicle trips per day. This is 60% more than the national average of 7 trips per day.* Residential energy use, mainly electricity and natural gas consumption within a household, was the second largest source of emissions followed by commercial/industrial energy use and waste.

### Government/Municipal Emissions

In 2005, internal government operations were estimated to have contributed just over 3% of total community emissions (3 thousand metric tons CO<sub>2</sub>e of greenhouse gas emissions). The largest emission sources were wastewater treatment and water management, followed by building and facility energy use, vehicle fleet, and employee commute. Waste and streetlight energy use contributed the remainder.

Figure 5  
2005 Citywide/Community Emissions  
(Total = 95,000 metric tons CO<sub>2</sub>e)

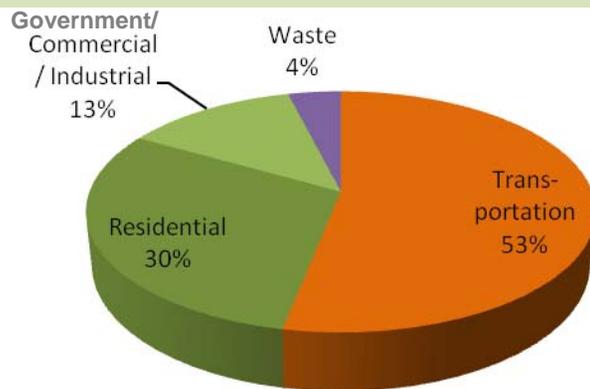
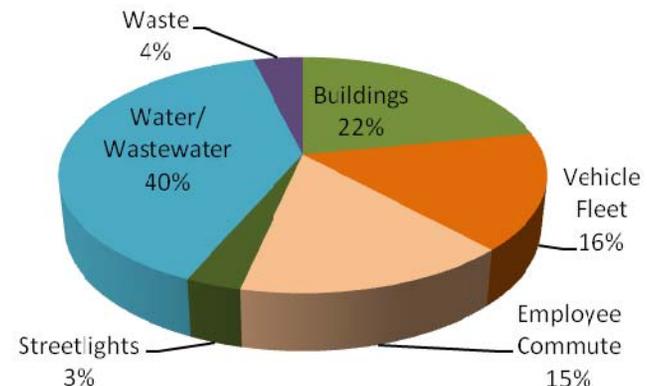


Figure 6  
2005 Government/Municipal Emissions  
(Total = 3,000 metric tons CO<sub>2</sub>e/  
3% of Community Total)



## 2020 Projections

If emissions continue to increase at the same rate of increase as population, jobs, and traffic volume, Mill Valley is expected to emit 8% more greenhouse gases in 2020 than in 2005. Between 2005 and 2020:

- The Association of Bay Area Governments (ABAG) projects that population will increase 2.1% from 14,000 to 14,300.<sup>6</sup>
- ABAG projects that the number of jobs in Mill Valley will increase 7% from 8,250 to 8,830.<sup>7</sup>
- The Metropolitan Transportation Commission (MTC) projects that county-wide vehicle miles traveled in Marin County will increase at a rate of 0.78% a year or approximately 12.4% between 2005 and 2020. As noted above, Mill Valley residents make over 11 vehicle trips per day pre household.
- Waste has been projected to grow at the same rate as population.

**Table B: Projected Growth in Mill Valley’s Community Emissions by Sector (“business as usual” trendlines)**

“Community Emissions” by Sector	2005 Emissions (metric tons CO2e)	2020 Projected Emissions (metric tons CO2e)	Growth
Transportation	50,400	56,630	12%
Residential	28,560	29,180	2%
Commercial / Industrial	12,190	13,050	7%
Waste	3,730	3,810	2%
<b>Total</b>	<b>94,880</b>	<b>102,660</b>	<b>8%</b>
<b>15% Emissions Reduction Target</b>	<b>94,880</b>	<b>80,650</b>	<b>-15%</b>

<sup>6</sup> “Building Momentum: Projections and Priorities 2009,” Association of Bay Area Governments, 2009.

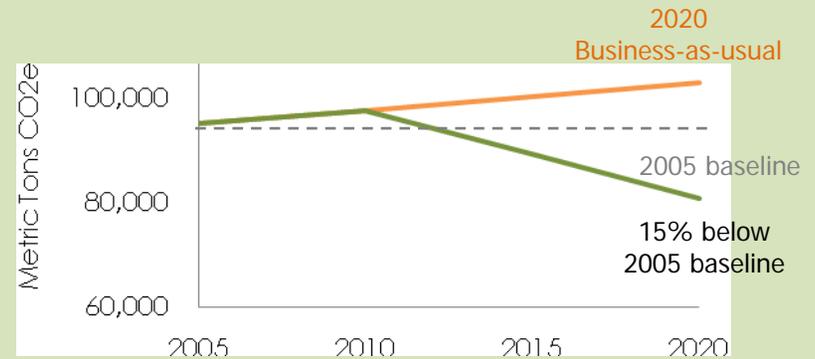
<sup>7</sup> Ibid.

## 2020 Emission Reduction Targets

The City of Mill Valley has adopted a greenhouse gas emissions reduction target of 15% below 2005<sup>8</sup> levels for community emissions, and 20% below 2005 levels for municipal operations by 2020.

**Figure 7**

### Community Reduction Target (2020)



### Government/Municipal Reduction Target (2020)



<sup>8</sup> The most recent emissions inventory used 2005 as the baseline year and is more accurate than the earlier inventory. Therefore, the emissions reduction targets will be applied to the 2005 baseline rather than 2000, as originally adopted by City Council.

# IV. WHAT CAN THE CITY & ITS RESIDENTS DO TO REDUCE ITS IMPACT/CONTRIBUTION?



## Community Discussion

**As part of this workshop, the City is interested in soliciting your opinions on: 1) what residents can do to reduce their contribution to Greenhouse Gas emissions, and 2) ways in which the City can help. Please e-mail or send your ideas to Danielle Staude, 26 Corte Madera Avenue, Mill Valley 94941 [dstaude@cityofmillvalley.org](mailto:dstaude@cityofmillvalley.org)**

### Transportation/Land Use

As in all of Marin County and the region, transportation is the largest source of Mill Valley's emissions. Mill Valley's households make an average of over 11 vehicle trips per day. This is 60% more than the national average of 7 trips per day.

- *What can you do as a resident?*
- *What can we do as a City to help?*

### Energy/Residential & Commercial Buildings

Buildings use significant amounts of energy and natural resources, and therefore have a critical impact on the natural environment. Through ongoing energy consumption and the energy embedded in construction materials, buildings are one of the primary contributors of GHG emissions.

- *What can you do as a resident?*
- *What can we do as a City to help?*

### Waste

Although Marin County receives accolades for its forward thinking environmental initiatives, it nonetheless has the dubious distinction of generating more garbage per person than any other County in the country ([http://www.acwa.com/television/water\\_and\\_energy.asp](http://www.acwa.com/television/water_and_energy.asp)).

- *What can you do as a resident?*
- *What can we do as a City to help?*

### Water

Treating and delivering water accounts for 19-20% of all electricity used in California, and is the largest single purpose use of electricity in Marin.

- *What can you do as a resident?*
- *What can we do as a City to help?*

### Natural Systems, Sequestration & Offsets

Healthy forestlands, wetlands, grasslands, composting can help absorb or "sequester" GHGs naturally.

- *What can you do as a resident?*
- *What can we do as a City to help?*

### Climate Friendly Food

The type of food consumed, where it is grown, and the methods used to grow food can impact the amount of GHGs generated.

- *What can you do as a resident?*
- *What can we do as a City to help?*

### Adaptation

Addressing possible climate change scenarios, such as sea level rise, can help prepare for future.

- *What can you do as a resident?*
- *What can we do as a City to help?*

### Other – *What Else?*

This is a working document and we are interested in your ideas!





## State of California Laws & Initiatives

### *Emissions Reduction Goals*

**SB 1771 – 2000:** This bill requires the California Energy Commission (CEC) to prepare an inventory of the state’s greenhouse gas emissions, study data on climate change, and provide government agencies and businesses with information on the costs and methods for reducing GHGs. It also established the California Climate Action Registry to serve as a certifying agency for companies and local governments to quantify and register their emissions for possible future trading systems.

**Executive Order S-3-05 – 2005:** As a companion measure to AB 32, Governor Schwarzenegger signed this executive order to commit California to state-wide emissions reduction by 80% below 1990 levels by the year 2050.

**AB 32 - 2006:** The Global Warming Solutions Act of 2006 remains the nation’s leading legislation to address GHG emissions. AB 32 institutes a mandatory limit on greenhouse gas pollution and requires a reduction in emissions to 1990 levels by the year 2020, which is about a 24% reduction statewide from current levels. The bill also directs the California Air Resources Board (CARB) to establish a mandatory reporting system to monitor emission levels and adopt regulations to achieve the targeted GHG reductions by 2012. In December 2008, CARB adopted a Scoping Plan to achieve the state’s 2020 climate goal.

### *Support for Renewable Energy*

**SB 1078 - 2002:** This bill established a Renewable Portfolio Standard requiring electricity providers to increase purchases of renewable energy resources by 1% per year until they have attained a portfolio of 20% renewable resources by 2010.

**California Solar Initiative Program - 2006:** This comprehensive \$2.8 billion program provides incentives for residential and commercial solar development over 11 years.

**Assembly Bill (AB) 811 – 2008:** This 2008 bill allows California municipalities to help citizens finance renewable and energy efficiency projects by issuing a bond to pay for initial installation costs. Repayment is stretched out over the life of the project and is made through a voluntary assessment on the building’s property tax, which transfers to the new owner at time of sale.

**Executive Order S-21-09:** This 2009 Order directs CARB to adopt regulations increasing California's Renewable Portfolio Standard (RPS) to 33 percent by 2020. The RPS will apply to investor-owned utilities, publicly-owned utilities, direct access providers, and community choice aggregators.

### *Low-Carbon Transportation & “Smart” Growth*

**AB 1493 – 2002:** This bill requires CARB to adopt regulations that achieve the maximum feasible reduction of greenhouse gasses from vehicles.

**Senate Bill (SB) 375 - 2007:** This law directs CARB to work with metropolitan planning organizations (MPOs) to set and achieve regional targets for GHG reductions based on better coordinated local and regional land use and transportation policies. In the Bay Area, the Joint Policy Committee, comprised of the Association of Bay Area Governments (ABAG), the Metropolitan Transportation Agency (MTC), the Bay Area Air Quality Management District (BAAQMD) and the Bay Conservation and Development Commission (BCDC), is the lead agency for AB 375 planning.

**AB 118 – 2008:** This bill establishes the California Alternative and Renewable Fuel and Vehicle Technology Program, which provides grants and rebates to support the development, manufacture, and purchase of Electric Vehicles (EVs), natural gas vehicles (NGVs), hydrogen Fuel Cell Vehicles (FCVs), biofuel vehicles, and other low-emissions vehicle technologies.



## Existing Mill Valley Programs & Policies

### *Transportation*

**General Plan:** The Circulation Element includes various policies and programs to address the City’s transportation system. Some of the policy goals of the Circulation Element include the following:

- Work with adjacent jurisdictions and agencies to address transportation issues, and identify and implement improvements to congested roadways and intersections. In these discussions, the City shall seek a comprehensive discussion of quality of life, transportation, environmental and other buildout issues.
- Streets and sidewalks shall be regularly maintained to provide safe pedestrian, bicycle and vehicular circulation.
- In planning transportation improvements, pedestrian, bicycle and vehicle safety shall be a high priority
- Strive to provide adequate public parking in the commercial areas, and all new redevelopment proposals should provide adequate parking facilities.
- Continue to develop the bikeway system throughout the community.
- Encourage the use of public transit and try to increase the amount of commuter parking available for residents.

**Land Use and Transportation Choices:** The Mill Valley General Plan acknowledges the connection between transportation and land use. As indicated in the land use section, “many residential areas are adjacent to neighborhood shopping districts. This provides residents the opportunity to walk to commercial areas – a rare feature in suburban communities.” Additional analysis reviewing the link between land use and transportation will be conducted in the upcoming updates of the General Plan.

**Steps, Lanes and Paths:** Mill Valley is fortunate to have a network of over 175 steps, lanes, and paths, many dating back to the town’s beginnings in the early 19<sup>th</sup> century. Maintenance of these paths is conducted by community groups in partnership with the City. These paths serve as an alternative method to access the main arterials and commercial areas of town and so are integral to the City’s emergency evacuation plan, safe routes to schools, and access to public transportation.

**Bicycle & Pedestrian Transportation Plan:** Mill Valley updated its Bicycle & Pedestrian Transportation Plan in 2008. This document identifies and prioritizes key bicycle and pedestrian infrastructure improvements for the City, including Steps, Lanes, and Paths.

**Safe Routes to School.** Safe Routes to Schools designed to decrease traffic and pollution and increase the health of children and the community. The program promotes walking and biking to school through education and incentives that show how much fun it can be. The program also addresses the safety concerns of parents by encouraging greater enforcement

of traffic laws, educating the public, and exploring ways to create safer streets.

**Streetsmarts.** Street Smarts Marin is a traffic calming program supported by the Transportation Authority of Marin (TAM) and local jurisdictions in Marin County. Its purpose is to make Marin's streets safer and friendlier. Corte Madera, Larkspur and Mill Valley pilot-tested the STREET SMARTS MARIN program from August 28th to November 1st, 2008. The pilot program deployed to coincide with the start of school and was on display through Halloween. The pilot communities then re-deployed the banners in three strategic corridors in June 2009 to target unsafe behaviors around schools, parks and other locales that are busy with camps and other summer activities.

**Promoting Ride Sharing for Mill Valley Employees:** To reduce emissions from City of Mill Valley employee commutes, an informational flyer was prepared and sent to all employees highlighting how to use the 511.org program to find potential carpool partners. Information about the Transportation of Marin's (TAM) Van Pool Incentive program was also consolidated and sent to all employees.

**Miller Avenue Streetscape Plan.** Currently the City is working to enhance Miller Avenue's transit, bike and pedestrian infrastructure (such as bike lanes, bike parking, and improved sidewalks) to encourage transit and non-motorized travel.

**Transit Service.** The City continues to coordinate with the regional transit providers and the Transportation Authority of Marin (TAM) to pursue funding opportunities to expand local and regional bus service in range and/or frequency.

**Mill Valley Shuttle.** Over the years, Mill Valley residents have asked for a shuttle within town. Most recently, the City applied for a shuttle grant opportunity in 2007. While Mill Valley did not receive the grant for the shuttle, it has spurred the Transportation Authority of Marin and Marin Transit to increase transit service within Mill Valley.

### *Energy/Residential & Commercial Buildings*

**Green Building Ordinance:** On December 1, 2008, the City Council unanimously adopted a Green Building Ordinance which mandates that all new residential and commercial development, including City facilities, meet certain green building standards. Documents related to the Green Building ordinance can be found here:

<http://www.cityofmillvalley.org/Index.aspx?page=948>.

**Solar System on the Public Safety Building:** At their September 2, 2009 meeting, City Council voted unanimously to finance the installation of a 100 kW ground-mounted solar system at the Public Safety Building at 1 Hamilton Drive. Once installed, this system will supply virtually all of the building's energy requirements. The project is currently on hold due to financing complications, but the City continues to investigate avenues to install this array.

### *Waste*

**Construction and Demolition Ordinance:** The City has adopted a Construction and Demolition Waste Recovery Ordinance that requires contractors to recycle or reuse at least 50% of the waste generated from a construction project including wood, metal, windows, and doors.

**Paper Reduction and Recycled Content Directive:** In September 2008, the City Manager issued a directive calling for a reduction in overall paper use in the City and mandating

that all paper purchased by the City be 100% recycled. Learn more about the paper directive and best practices to reduce paper use here:

<http://www.cityofmillvalley.org/Index.aspx?page=985>.

**Environmentally Preferable Food Packaging Ordinance:**

This ordinance, adopted in August of 2009, prohibits the use of disposable polystyrene foam for food service ware, and requires the use of environmentally preferable alternatives by all Mill Valley food vendors, restaurants and City facilities. Learn more about this ordinance here:

<http://www.cityofmillvalley.org/Index.aspx?page=1026>.

**Recycled Lumber and Green Waste Composting:** The City uses salvaged lumber from removed trees in City Building projects and uses chipped bushes and landscaping debris as mulch in City projects.

**Waste Drop-off Services:** The City collects and transports fluorescent light bulbs to the recycling center and offers a collection bin for old batteries at various City buildings. .

*Water*

**Water Conservation Seminar:** On May 26, 2009, the City of Mill Valley collaborated with the Marin Municipal Water District, to sponsor a public workshop on water conservation.

**Waterless Urinals:** To educate the public about water conservation techniques, and to save money on their water bill, three waterless urinals were installed at the Sewerage Agency of Southern Marin (SASM) offices in June 2009.

**Reclaimed Wastewater:** The City reclaims approximately 9 million gallons of wastewater each year for landscape irrigation. The reclaimed water is used in Bay Front Park and Hauke Park, including practice fields and open space areas, the Mill Valley Dog Park and Meadow area. Expansion of the

reclaimed water system is planned to include the landscaped areas of the Public Safety Building.

**Water Efficient Landscaping:** The City requires all new building projects to have a landscape plan that includes water efficiency.

*Natural Systems, Sequestration & Offsets*

**Tree Removal Ordinance.** The City requires permits for the removal of trees

**Design Review.** Landscape Plans are required for redevelopment projects. Lot coverage and pervious surfacing is also reviewed.

**Miller Avenue Streetscape Plan.** The Miller Avenue Streetscape Plan will include a review of pervious and impervious surface area along the street, as well as a review of the existing landscaping and stormwater systems along Miller Avenue.

*Climate Friendly Food*

**Farmers Market:** A collaborative between Mill Valley Citizens, the City and the Golden Gate Farmers market Association resulted in the establishment of a Farmers Market on East Blithedale Avenue in June 2009. The market is open on Fridays from 9am-2pm in front of the new Whole Foods Market and features local organic products and has a “no single-use bags” policy. Shoppers are encouraged to bring their own bags.



## List of Resources

### *City of Mill Valley*

[www.cityofmillvalley.org](http://www.cityofmillvalley.org)

- Climate Protection Page
- Green Building Page

Planning & Building Facebook Page

[www.facebook.com](http://www.facebook.com)

- Become a “fan” - search “City of Mill Valley Planning”

### *State of California*

[www.climatechange.ca.gov](http://www.climatechange.ca.gov)

### *ICLEI - Local Governments for Sustainability*

[www.icleiusa.org](http://www.icleiusa.org)

### *Local Climate Action Plans*

- San Rafael, CA  
<http://www.cityofsanrafael.org/Assets/CDD/Climate+Change+Action+Plan.pdf>
- Palo Alto, CA  
[www.cityofpaloalto.org/civica/filebank/blobdload.asp?BlobID=9986](http://www.cityofpaloalto.org/civica/filebank/blobdload.asp?BlobID=9986)
- Berkeley, CA  
[www.berkeleyclimateaction.org](http://www.berkeleyclimateaction.org)
- Benicia, CA  
<http://www.beniciacclimateactionplan.com/home.html>